

**Massachusetts Department of Public Health
Project Abstract**

Funding Opportunity: CDC-RFA-IP14-1404PPHF14

Immunization – Capacity Building Assistance for Infrastructure Enhancements to Meet Interoperability Requirements

The Massachusetts Department of Public Health (MDPH) has made significant progress in the implementation and roll-out of the Massachusetts Immunization Information System (MIIS). This includes the implementation of three primary components of the MIIS: the open-source web-based application, the Immunization Forecast Module and the HL7 2.5.1 web service, now deployed through the state health information highway. All three primary components of the MIIS are deployed in production and are being utilized through the Commonwealth's hosting environment. In addition, MDPH is actively rolling out the MIIS across the state, particularly to provider sites with electronic health record systems that will interoperate with the MIIS via HL7 data exchange. Building on existing progress and understanding the tremendous value of Immunization Information Systems, MDPH has a clear strategy for increasing the utilization and features of the MIIS. In this proposal, MDPH will : 1) improve the ability for the MIIS to receive and process HL7 transactions; 2) improve the quality of data received into the MIIS; 3) create capacity for the MIIS to receive and respond to immunization record queries; 4) reduce delay in data processing; 5) improve timeliness of data provided to providers; 6) increase the number of providers and provider sites submitting data to the MIIS from their EHR systems; 7) improve technical competency and operational efficiency of the Immunization Forecast Module; and 8) improve data processing efficiency and programmatic capacity to support data needs.

First deployed in February 2011, the MIIS was customized to meet the needs of Massachusetts providers and is in full compliance with ONC meaningful use criteria, CDC messaging standards and HL7 messaging standards, including utilization of HL7 2.5.1 and the appropriate message transport security. Currently, over 350 sites submit data to the MIIS through electronic data exchange. The MDPH will build upon this successful roll out launch and implement the following activities: increase onboarding of data exchange provider sites by augmenting existing roll out staff; enhance the current system for identifying duplicate data and identity resolution; update algorithms and automate testing for existing clinical decision support system; implement bi-directional data exchange, automated HL7 testing tool, Data Quality Analysis Tool and HL7 Administration Console; upgrade hardware and software to support enhanced data processing, and automate core functional tests of the MIIS application.

The significant progress in implementing the MIIS, experience of the existing project team, and provider community investment put MDPH in a strong position to enhance interoperability and realize the shared goals of MDPH and the CDC in support of preventative health and full vaccine coverage for our citizens.